

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application of: Nicholas J. Bonge, Jr.)
Filed: February 14, 2001)
Title: ULTRASONIC TRANSCEIVER AND)
REMOTE CONTROLLED DEVICES FOR)
PETS)

RULE 121(b) PRELIMINARY AMENDMENT

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

Please amend the above-captioned reissue application as follows:

In the Drawings:

Please accepted amended Figs. 4-6 as submitted herewith.

In the Specification:

In Column 3, Line 31, after the word "lines", please delete the symbols "1-1" and insert therefor the words and symbols --lines 5 - 5 of FIG. 4.--

In Column 3, Line 33, after the word "lines", please delete the symbols "2-2." and insert therefor the words and symbols --lines 6 - 6 of FIG. 5.--

In Column 7, please replace the paragraph beginning on Line 3 through Line 13 with the following paragraph:

FIG. 4 illustrates an automatic pet door that is controlled by the transceiver of FIGS. 7(a) and (b). The door utilizes a transmitter arrangement identical to that of FIG. 2 wherein the transmitter of FIG. 7(a) is mounted within housing 72. For attachment, housing 72 is attached to strap 76 and strap 76 is looped around the animal's neck and secured with buckle 77 as discussed above. Receiver 82 is mechanically attached to pet door as shown in FIG. 4 and discussed below. With respect to the electrical configuration for receiver 82, FIG. 16B shows a typical working circuit of one embodiment of receiver 82 for the automatic pet door shown in FIG. 4. Note that for the pet door there is no need to use discrete transistors in the working circuit for the receiver to conserve power. This is because receiver 82 for the pet door is ultimately powered by household alternating current.

In Column 7, please replace the paragraph beginning on Line 14 through Line 58 with the following:

Referring now to FIGS. 4-6, the pet door of the present invention is shown in greater detail. Specifically, door casing 80 is constructed by joining the opposing ends top frame member 91 to one end of left frame member 90 and one end of right frame member 92. The other respective ends of left frame member 90 and right frame member 92 are attached to opposing ends of bottom frame member 93 (See FIG. 5). With this configuration, the door casing defines a door opening 83, and movable panel 81 is slidably mounted to door casing 82 within door opening 83. To do this, vertical grooves (not shown) are formed in the respective inner surfaces of left frame member 90 and right frame member 92. These vertical grooves interfit with movable panel 81 and act to guide movable panel 81 vertically along its upward/downward path. Left frame member 90, right frame member 92, top frame member 91 and bottom frame member 98 are preferably custom wood moldings, but could easily be made from aluminum or plastic materials.

The pet door of the present invention further includes an electric motor 96 that is fixed to top frame member 91 with mounting bracket 97. Motor shaft 99 extends outwardly from motor 96, and spool 98 is rigidly fixed to motor shaft 99 with set screw 100 (See FIG. 5) so that spool 98 rotates with motor shaft 99 during operation. To raise and lower

movable panel 81, cable 101 is attached to motor 96 and to movable panel 81. More specifically, one end of cable 101 is attached to spool 98. Cable 101 is then looped around a pulley 102 and a cable guide 103 that are rigidly attached to movable panel 81 with shoulder screw 104. The other end of cable 101 is fed to one end of locking pin 105 and attached with cable crimp 106. Cable guide 103 prevents cable 101 from slipping off pulley 102 during operation of the pet door.

Pin bracket 108 is rigidly fixed to movable panel 81 by screws 109 and 110, and locking pin 105 is slidably mounted to bracket 108, as best seen in FIG. 5. This allows locking pin 105 to move in translation into locking pin hole 107 which is formed in left frame member 90. A compression spring 111 is fitted around locking pin 105 and biases locking pin 105 into locking pin hole 107, thus, preventing the movable panel from being moved out of door opening 83 while there is slack in cable 101. With this configuration, it is not possible for an intruder to manually lift movable panel 81.

Front and rear plates 112 and 114, FIG. 6, respectively interfit with grooves 127 and 113 and act to enclose the upper portion of the assembly. Door mounting holes 115-120, FIG. 5, are provided to mount the assembly to a household door or wall.

During operation, receiver 82 receives an input signal that is received from the transmitter within transmitter housing 72 only when the pet is facing the pet door, as discussed above. Receiver 82 receives this signal, and, provided the received meets the predetermined parameters also discussed above, closes normally open relay 124, FIG. 16B, which further closes to route power to motor 96. As motor 96 is activated and rotates, attached spool 98 turns, and cable 101 is wound around spool 98 when motor shaft 99 is rotated. As cable 101 is wound around spool 98, a tension force is created in cable 101. The tension force in cable 101 counteracts and overcomes the force from compression spring 111 that biases locking pin 105 into locking pin hole 107. Accordingly, locking pin 105 is pulled out of locking pin hole 107 and away from left frame member 90, which frees movable panel 81 for upward movement as cable 101 is gathered around spool 98.

In Column 8, Line 3, after the characters "16B" and before the word "that", please delete and words "further shows" and insert therefor the words and characters --and 16C further show--

REMARKS

No new matter has been added to the specification, the specification was merely amended for clarity. Specifically, the drawings and specification of the original patent have been amended to more clearly describe the present invention set forth in claims 21-35 and to ensure that similar reference characters refer to similar parts. The Examiner is requested to call the undersigned at 805-642-2101 for any reason that would advance the present application to issue.

Dated: February 15, 2001.

Respectfully submitted,



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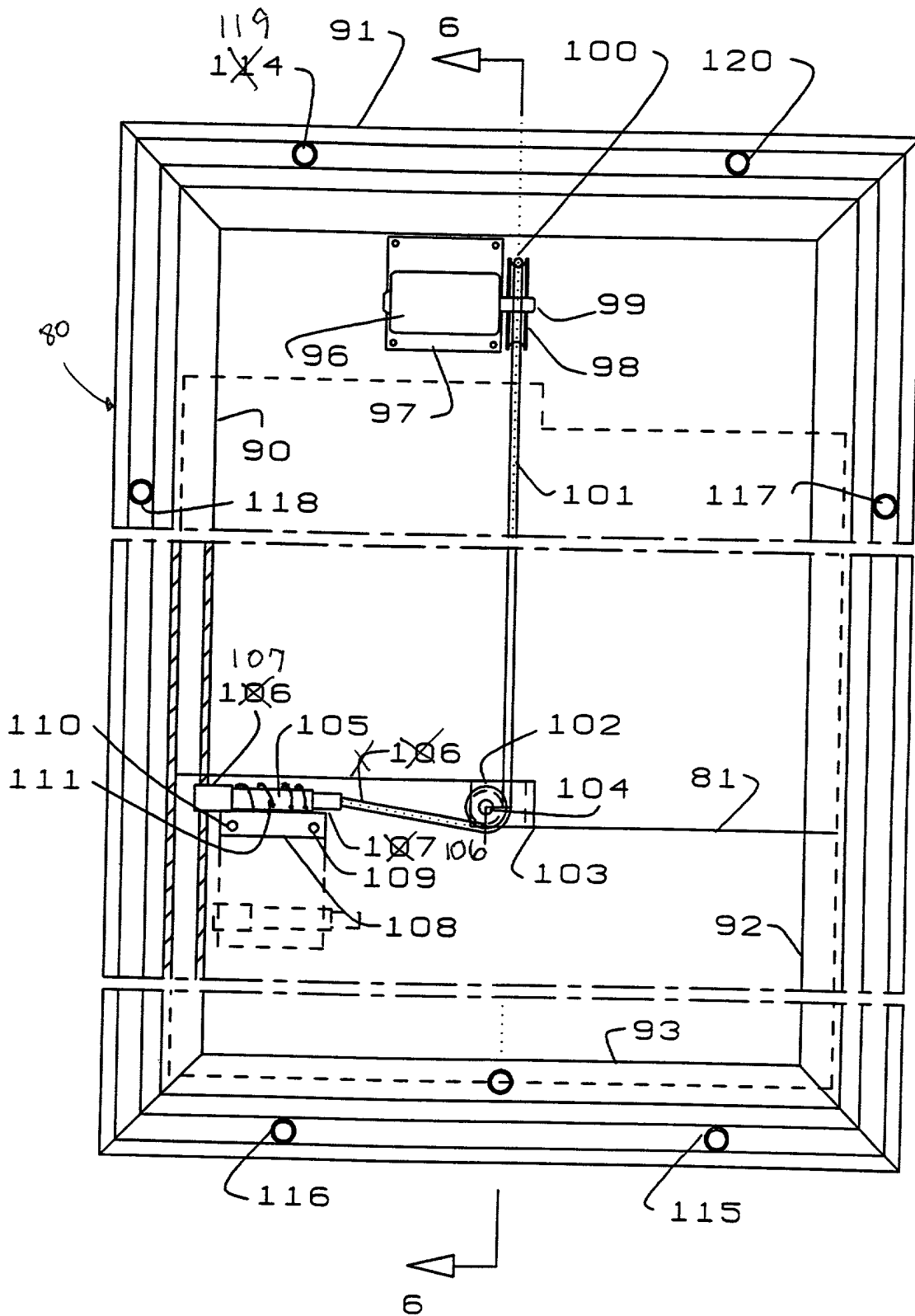


FIG. 5

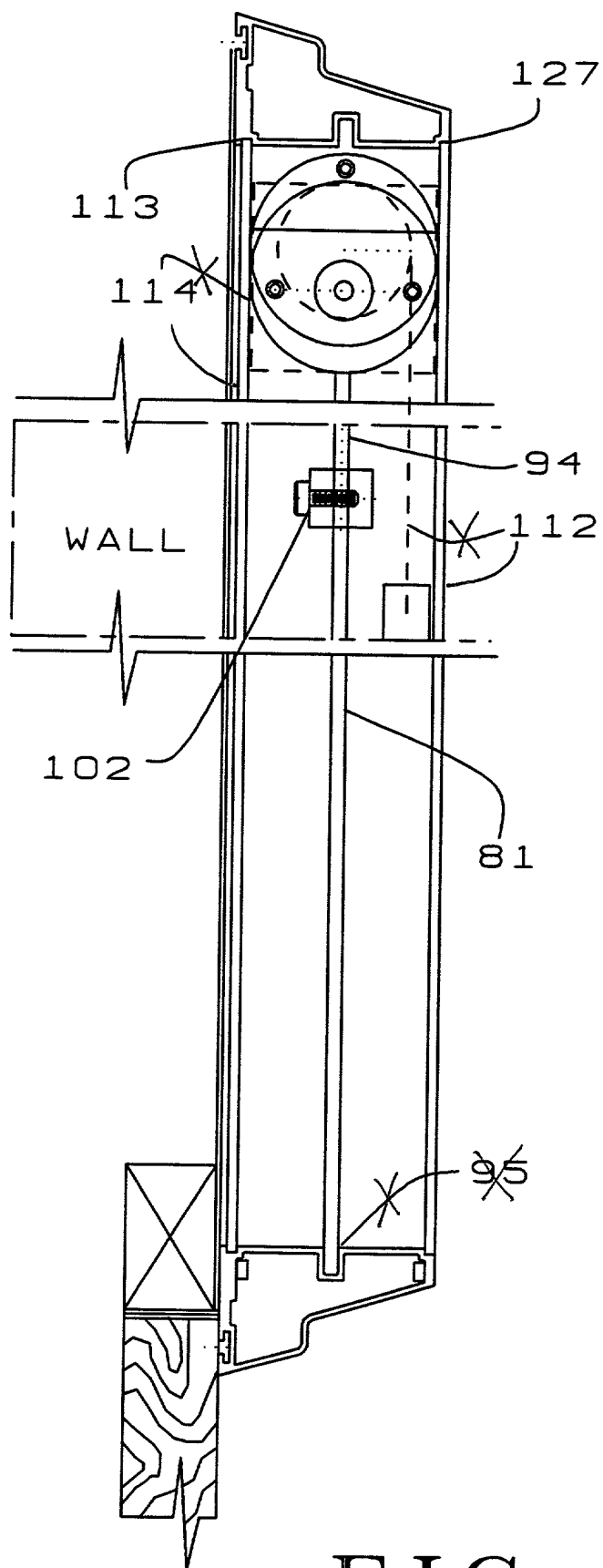


FIG. 6